transmission is performed in accordance with a schedule, said method further cmprising the step of storing said schedule.

39. (New)   The method of claim 4, further comprising the step of embedding said instruct-to-embed signal in said broadcast or cablecast information transmission.

REMARKS

The Office Action dated December 11, 1996 has been carefully reviewed. In response thereto, claims 2-4 have been amended, and claims 5-39 have been added. After the foregoing claim amendments have been entered, claims 2-39 remain active in the application. No new matter is added by the claim amendments or the new claims.

In their 1987 continuation-in-part specification, applicants disclose "an integrated system of programming communication" which encompasses many inventions and deliberately includes many embodiments. Their teaching technique is to introduce the principles of their integrated system in a series of *related* examples. Each example builds upon structure and principles introduced earlier. Examining basic principles in detail in early examples, enables the specification with concreteness to expand and extend the scope of the teaching in later examples.

Starting with "One Combined Medium" on page 19 which focuses on the creation and delivery of a receiver specific graph in a broadcast or cablecast television program,

"Wall Street Week," the specification introduces concepts of personalization of mass media and broadcast control of receiver station computing equipment. At page 28 *et seq.* it describes apparatus that include signal processors and signal decoders and introduces the concept of a signal processor *system.* At page 40 *et seq.* it teaches the composition of signal information and the organization of message streams.

Then in a series of four examples, #1 through #4 which begin on pages 108, 143, 162, and 197 respectively, the specification demonstrates how receiver stations communicate signal processor apparatus and methods (SPAM) processor code and data of the integrated system of programming communication to *some* apparatus they actuate, how decryption occurs, how metering and monitoring take place, and how actuated apparatus perform. Each example builds on concepts introduced earlier in the specification to provide a detailed teaching of its own subject matter, and a particularly important teaching occurs from pages 156 through 162 where the specification teaches the structure and operating capabilities of a controller of a decoder.

Building on all that precedes it, example #5, which begins on page 248, then relates how the integrated system processes a multichannel communications system, which conveys different types of signals, in order to monitor programming availability and enable receiver station apparatus to receive desired programming. From pages 278 through 312, in example #6 and especially example #7, which includes both digital and analog television signals and relates to the "Wall Street Week" program (and which has further disclosure at pages 427 through 447, the specification teaches regulating

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reception and use of programming of the integrated system of programming communication.

At page 312 *et seq.* the specification relates further monitoring concepts.

From page 324 through page 390 the specification teaches a series of transmitter station and transmitter network concepts. This portion of the specification also relies on all previous disclosure in that special attention is given to intermediate transmitter stations which, *as receiver stations,* respond to programming transmissions of the integrated system as well as storing, organizing, generating, and transmitting programming. At page 340 *et seq.* example #8 teaches distribution to, storage and organization at, and retransmission from intermediate transmission stations (ITS) of SPAM programming -- most specifically television spot commercials. At page 354 *et seq.* example #9 teaches automating intermediate transmission station combined medium operations by describing how an intermediate transmission station responds to an intermediate generation set and other elements of the integrated system to generate processor code and data and transmit the code and data with SPAM programming -- spot commercial unit Q of example #8 -- all of which are subsequently shown in the specification to operate at receiver stations to deliver receiver specific programming at video monitors, speakers, printers, and transmitters (telephones which communicate to remote data collection stations). At page 374 *et seq.* example #10 extends the transmitter and network automating concepts of examples #8 and #9 by disclosing *a plurality* of intermediate transmission stations generating processor code and data, in the fashion of

example #9, and inserting different code and data into a *network originated* transmission of SPAM programming -- again the unit Q television spot commercial.

From page 390 through 516, the specification discloses further ultimate receiver station (URS) automation concepts, including regulating the URS environment (page 396 *et seq.*), controlling multiple receivers and output devices to present coordinated output (page 406 *et seq.*), receiving selected programming of the integrated system (page 419 *et seq.*), certain *integrated system computer system concepts* (page 427 *et seq.*), whose example #7 (page 427 *et seq.*) description relies on the receiving selected programming concepts of pages 419-427. At page 447 *et seq.* the specification discloses certain data maintenance, timing control, efficiency, and other concepts involved in controlling combined media operations. At page 457 *et seq.* the specification discloses certain timing, imaging, communication, and transmission processing concepts that relate to efficient delivery of integrated system programming, including the concept of transmission stations that can transmit program instruction set information outside the conventional television programming transmission. Furthermore, At page 463 *et seq.* the specification relates to user specific audio, print, and other combined media besides receiver specific video.

With all this preparation, the specification teaches, from page 469 through page 516, the combined media presentation of examples #9 and #10 at a plurality of ultimate receiver stations (which are responding to signals sent by different intermediate transmission stations).

At page 516 *et seq.* the specification discloses enhancing and extending

functionality of the integrated system by reprogramming receiver apparatus and

enabling receiver stations to process transmissions having new forms of composition.

Finally, at page 533 *et seq.* the specification discloses "Summary Example" (#11)

which teaches a very large scale integrated data processing and communications

problem and its solution(s), using *all of* the disclosed integrated system with iterative

broadcasting, response, and refinement.

Owing to the integrated nature of the disclosure, no part of the specification is

intended to be considered *in isolation.* However, with regard to the present application,

the invention is disclosed, among other places, at pages 366-367, where the concept of

signal processing apparatus and method (SPAM) messages containing execution and

meter-monitor segments embedded in television network transmissions is discussed.

The discussion also includes the treatment of the embedded SPAM messages by the

receiver station and the effect of the embedded SPAM messages at the receiver station.

Further, at page 370, line 17, the specification teaches how the embedded SPAM

message can cause a transmitter station to cease embedding other information. At page

373, the specification teaches a method of using embedded SPAM messages and control

signals to cause a transmitter station to cease embedding one combination of

information and control signals, and to commence embedding a different combination

of information and control signals. Page 382, line 1, begins a very specific example of

utilizing embedded and transmitted information to cause a transmission station and

associated signal generators to cease embedding one specific information and to

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commence embedding a different information in the normal transmission location. At page 388, line 9, the specification teaches a specific example of the cease-embedding and commence-embedding techniques as applied at intermediate transmission stations, where information and control signals are both received and transmitted. This example is immediately followed on page 389, line14, by a discussion of the various types of information transmissions that can be employed for the embedding of data and control signals of the present invention.

Further, at pages 457-458 in example 10, the disclosure teaches varying the amount of SPAM signal embedded within a television transmission, as well as the timing and placement of the SPAM or program instruction set information within combined medium transmissions. Even more specifically, at page 459 the disclosure teaches expanding the amount of SPAM information embedded within a television transmission by embedding the SPAM information in the full field video of the television transmission rather than the normal transmission location, i.e. the portion of the television transmission not displayed. This process is discussed with meticulous specificity in a detailed example on pages 459-463. The foregoing is intended to be exemplary only and in no way to limit the claimed invention to the cited passages.

Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention. Specifically, the examiner argues that "[t]he preamble of claims 2-4 recites 'a method for controlling..' while the body on (sic) the

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claims does not contain any step of controlling. Therefore, the preamble of claims is inconsistent with the body of the claims." Applicants respectfully assert there is no basis for the examiner's objection.

First, there is no logical requirement that any individual claimed step in a method or process claim match the language of the preamble. To paraphrase a popular example from academic discussions of patent practice, in a claim directed to "a method for making a peanut butter and jelly sandwich," it is entirely likely that no single claimed step in the method would include the verb "to make."

Second, there is no procedural requirement that the language of claims be consistent with the language of the preamble to the claims.

> The preamble is not given the effect of a limitation unless it breathes life and meaning into the claim. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951) (discussed below). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987) (discussed below). On the other hand, *a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.* In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) (process claims, discussed below); (citation omitted).

> In In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976), the claim preamble set forth "A process for preparing foods and drinks sweetened mildly, and protected against discoloration, Streckler's reaction, and moisture absorption." The body of the claim recited two steps directed to the formation of high purity maltose and a third step of adding the maltose to foods and drinks as a sweetener. The court

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> held that the preamble was only directed to the purpose of the process, the steps could stand alone and did not depend on the preamble for completeness.

MPEP (6th ed., Rev. 2) § 2111.02 (emphasis added). The steps recited in claims 2-4, standing alone, recite a method for controlling the transmission of data or control signals by a broadcast or cablecast transmission station. Accordingly, the steps are not limited by the preamble and therefore the claims do not need to use language contained in or defined by the preamble.

Applicants recognize that a recitation of intended use of a claimed invention may limit the claim if it does more than merely state the purpose or intended use of that claimed invention. *Id.* However, in order to so limit the claim, "[i]n a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto,136 USPQ 458, 459 (CCPA 1963) (The claims were directed to a core member for hair curlers and a process of making a core member for hair curlers. Court held that the intended use of hair curling was of no significance to the structure and process of making.)" *Id.* In the instant application, the intended use in no way results in "a manipulative difference compared to the prior art," so the preamble may not properly be interpreted to limit the claims.

Finally with respect to rejections under 35 U.S.C. 112, second paragraph, the examiner has objected to the language in claim 4 "effect a receiver station to generate an instruct-to-embed signal effective to cause said broadcast or cablecast transmission

station to cease . . . transmission." Claim 4 has been amended to replace the word

"effect" with the word "cause." Furthermore, claim 4 has been amended to eliminate

alternative claim language. Applicants assert that in its amended form, claim 4

particulary points out and distinctly claims the subject matter of the claimed invention.

Accordingly, applicants respectfully request that the examiner review the amended

claims in light of the specification and withdraw the rejection under 35 U.S.C. 112,

second paragraph.

Claims 2-4 are rejected under 35 U.S.C. §102(e) as being anticipated by Campbell

et al. , U.S. Patent no. 4,536,791. Since applicants are claiming priority from application

serial no. 07/096,096, filed September 11, 1987, now U.S. Patent no. 4,965,825, and

Campbell et al., U.S. Patent no. 4,536,791 issued August 21, 1985, applicants assume that

35 U.S.C §102(b) is the proper basis for rejection, and address all of their arguments

accordingly. However, if examiner believes that 35 U.S.C. §102(e) is also proper basis

for rejection, applicants arguments should be equally applicable to rejection on that

basis as well.

The cited art of Campbell is directed to an addressable cable television control

system including the transmission from the head end of television programming and

embedded data signals. (Campbell, Abstract). The data signals can include both

control signals and text signals carried in the vertical blanking interval (VBI) of a

standard analog NTSC television transmission. (Campbell, Abstract). Data signals are

used to control the subscriber station converter regarding access to specific channels,

programming tiers, programming subject matter and special events. Textual data is

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transmitted in both the VBI (at a reduced data rate) and in full channel format (at an enhanced data rate) to be formatted and displayed at subscriber stations. (Campbell, Abstract). The invention discloses an "intelligent" converter which is designed to (1) receive, convert and descramble video on up to 55 channels, (2) receive and format for display embedded VBI and full channel textual data and (3) act under the control of the headend through "channel control" and "subscriber addressing data" control signals. (Campbell, col. 2 at lines 64-66). Each RF channel includes a complimentary text channel carried in the VBI to be decoded and displayed as an alternate channel to the video programming, the data of the alternate channel comprising a combination of text and graphics. (Campbell, at col. 3 lines 8-14). The system can also function as a two-way interactive communications system providing capability for pay-per-view, opinion polling, channel monitoring and information retrieval. (Campbell, col. 3 at lines 22-26; col. 17 line 42). Both text data and subscriber addressing/channel control signals are transmitted in the VBI channel, although high data rate text data may also be transmitted full channel via an FSK transmitter. (Campbell, lines 25 and 48). The embedded channel control signals are transmitted from the head end as a broadcast whereby each program is accompanied by a control signal identifying its tier code, program code, eligibility code and descrambling code. (Campbell, fig. 11 and col. 6, line 65). Individual addressable converters are controlled by the subscriber addressing control signals that control user access on the basis of channel, tier, text, event/program code, and eligibility threshold. (Campbell, fig. 11). The system, therefore, provides for user access control by comparing channel control signal data received in a broadcast to

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the stored subscriber addressing signal control data. A favorable comparison or match enables reception, descrambling and display, while an unfavorable comparison results in the display of predetermined messages. Campbell, therefore, discloses a method for (1) distribution and control of broadcast programming in a system including a head end and a plurality of addressable converters through the application of embedded VBI control signals and (2) transmission of textual programming in the VBI as an alternate programming channel to display text and graphics.

Application claims 2-4, as amended, are directed to a method of controlling the transmission of data or control signals based on some data received from a remote source which causes a signal generator to cease embedding one combination of data and control signals in an information transmission, and to commence generating a different combination of data and control signals in the information transmission.

Applicants respectfully submit that the cited art does not anticipate claims 2-4 since the reference fails to disclose every element of the claimed invention. Specifically, Campbell does not teach, disclose, suggest or imply the element of detecting a control signal from a remote or local source.

Campbell discloses the transmission of textual data in the VBI, which is received and processed at the graphics display generator to create a display of corresponding text and graphics. (Campbell, col. 9 at lines 27-29). However, Campbell's text/graphics are not generated at the receiver station, but are broadcast from the head end to merely be formatted for display at the receiver station. Nor are they generated based on previously received data. Moreover, they are not user specific: the textual data is

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transmitted to all receiver stations broadcast-fashion and in no way results in a series of user specific graphics. Therefore, it is clear that Campbell does not disclose the elements of claims 2-4 relating to receiving a control signal from a remote station and the response to the receipt of that control signal from a remote station.

As discussed *supra*, Campbell does not disclose, suggest or imply the subject matter of claims 2-4, including receiving an instruct-to-embed signal from a remote station and causing a signal generator to cease embedding unit of data or control signal and causing a signal generator to embed a different unit of data or control signal. Rather, Campbell discloses a method for displaying textual data, broadcast transmitted in the VBI of a standard television signal, that can be processed and displayed as an alternate programming channel to the television programming otherwise carried by the standard NTSC format transmission. Applicants submit that these clearly identifiable differences between the claim and the art are such that the subject matter of claims 2-4 is clearly distinct in object and effect from that of the cited reference. Accordingly, applicants respectfully request reconsideration of the rejection of claims 2-4 under 35 U.S.C §102(b) as being anticipated by Campbell. If examiner believes that 35 U.S.C. §102(e) is also proper basis for rejection, applicants arguments should be equally applicable to rejection on that basis as well, and applicants respectfully request reconsideration of the rejection of claims 2-4 under 35 U.S.C §102(e) as being anticipated by Campbell.

As an initial matter, the examiner's rejection of the present application under the Schneller double patenting theory based on Harvey U.S. Patents 4,694,490 and 4,704,725

is improper because the present application does not claim the benefit of those applications under 35 U.S.C. § 120. Thus, there could never have been a basis for claiming the present subject matter in those applications. Therefore, the rejection based on Harvey U.S. Patents 4,694,490 and 4,704,725 should be withdrawn.

Moreover, the PTO fails to specifically identify all claims from cited Harvey patents that cover specific claims in the present application. Rather, the Office Action references "representative claims" from patents and the present application. The Office Action does not cite specific elements from claims in a patent covering specific elements in claims in the application. In fact, the Office Action acknowledges that the patent claims and application claims are directed to different elements, but states that this "does not prohibit this rejection if there is common or interrelated subject matter recited." The Office Action then references Schneller in support of this erroneous statement, not supported by Schneller.

The claims in the present application are distinct from the claims in the Harvey patents. As previously mentioned, the Office Action states that the independent and distinct standard was the main factor in the Schneller court's determination that the double patenting rejection should be affirmed. The Office Action has misinterpreted this phrase. This phrase means independent 'or' distinct. MPEP (6th ed.) § 802.01. The MPEP defines independent as meaning "that there is no disclosed relationship between the two or more subjects disclosed" and that they are not connected. The MPEP defines the term distinct as meaning that "two or more subjects disclosed are related . . . but are capable of separate manufacture, use, or sale as claimed . . . ." Two or more subjects

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cannot then be unrelated, independent, and also related, and thus distinct. Analyzing the PTO's cited representative claims referenced in the Office Action, the claims of the present application are clearly distinct from the claims in the patents and therefore the claims in the present application are patentable. Although not required, applicants will analyze the claims of the present application with respect to the designated representative claims of Harvey U.S. Patents 4,694,490 and 4,704,725.

<u>Claim 3 of the present application is distinct from the first representative claim, claim 7 of U.S. Patent 4,694,490.</u>

Patent 4,694,490, claim 7 claims a method of communicating television program material, said material including a video signal containing a television program and an instruct-to-overlay signal, to multiple receiver stations. The video signal is received and the instruct-to-overlay signal detected and processed by a computer. The computer generates and transmits its overlay video signals to a television receiver which presents a combined display of the television program and overlay video signals, said display being specific to a particular user.

Present application claim 3, as amended, relates a method of controlling the transmission of data or control signals by a remote broadcast or cablecast transmitter station. The method includes the steps of receiving a broadcast or cablecast transmission, generating a control signal to cause the broadcast or cablecast transmitter station to cease embedding one specific unit of data or a control signal, and to cause the broadcast or cablecast transmitter station to commence embedding a different unit of data or control signal.

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Patent claim 7 does not cover present application claim 3. Patent claim 7 relates to instruct-to-overlay signals that are processed by a computer and received by a television receiver which presents a combined display of the instruct-to-overlay signal and a television program. Application claim 3 relates to a transmitter station ceasing to embed one of a specific unit of data or a control signal in an information transmission, and embedding a different one of a specific unit of data or a control signal in the information transmission in response to a generated instruct-to-embed signal. The two claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.

U.S. patent 4,694,490, claim 7	Present application, claim 3 (as amended)
In a method of communicating television program material to a multiplicity of receiver stations each of which includes a television receiver and computer, the computers being adapted to generate and transmit overlay video signals, to their associated television receivers, said overlay signals causing the display of user specific information related to said program material, and with at least some of said computers being programmed to process overlay modification control signals so as to modify the overlay video signals transmitted to their associated receivers, each of said computers being programmed to accommodate a specific user application, and wherein a video signal containing a television program signal and an instruct to-overlay signal are transmitted to said receiver stations, the steps of: receiving said video signal at a plurality of	A method of controlling the transmission of one of data and control signals by one of a remote broadcast and a remote cablecast transmitter station, said one of a remote broadcast and a remote cablecast transmitter station comprising at least one receiver for receiving information from an origination transmitter station; at least one signal generator for embedding data in one of a broadcast and a cablecast information transmission; at least one transmitter for transmitting said one of a broadcast and a cablecast information transmission; and at least one of a processor, a controller, and a computer for controlling one of the communication of information to and the embedding of information at said signal generator, comprising the steps of: (1) receiving said one of a broadcast and a cablecast information transmission at[a transmission] said origination transmitter station;

receiver stations and displaying said program material on the video receivers of selected ones of said plurality of receiver stations

detecting the presence of said instruct-to-overlay signal at said selected receiver stations at a time when the corresponding overlay is not being displayed, and

coupling said instruct-to-overlay signal to the computers at said selected receiver stations, and

causing the computers at said selected receiver stations to generate and transmit their overlay video signals to their associated television receivers in response to said instruct-to-overlay signal, thereby to present a combined display at the selected receiver stations consisting of the television program and the related computer generated overlay, the overlays displayed at a multiplicity of said receiver stations being different, with each display specific to a specific user.

(2) generating an instruct-to-embed signal effective to cause said one of a broadcast and a cablecast transmitter station to cease embedding one of first data and a first control signal, and embed[a different a unit of] one of second data and a second control signal in said broadcast or cablecast information transmission; and

(3) transmitting said one of a broadcast and a cablecast information transmission and said instruct-to-embed signal.

Claim 3 of the present application is distinct from the second representative claim, claim 3 of U.S. Patent 4,704,725.

Patent 4,704,725, claim 3 claims a method of communicating output signals comprising data and user specific signals at a multiplicity of receiver stations from computers to output devices. At least some of the computers can modify the user specific signals by processing modification control signals. The computers communicate the data and user specific signals in response to a received and detected instruct-to-transmit signal.

Present application claim 3, as amended, relates a method of controlling the transmission of data or control signals by a remote broadcast or cablecast transmitter station. The method includes the steps of receiving a broadcast or cablecast transmission, generating a control signal to cause the broadcast or cablecast transmitter station to cease embedding one specific unit of data or a control signal, and to cause the broadcast or cablecast transmitter station to commence embedding a different unit of data or control signal.

Patent claim 3 does not cover present application claim 3. Patent claim 3 relates to the communication of user specific signals. Application claim 3 relates to a transmitter station ceasing to embed one of a specific unit of data or a control signal in an information transmission, and embedding a different one of a specific unit of data or a control signal in the information transmission in response to a generated instruct-to-embed signal. The two claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.

U.S. patent 4,704,725, claim 3	Present application, claim 3 (as amended)
A method of communicating data to a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific signals to one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify the user specific signals transmitted to their associated output devices, each of said computers being programmed to accommodate a special user application, comprising the steps of: transmitting an instruct-to-transmit signal to said computers at a time when the	A method of controlling the transmission of one of data and control signals by one of a remote broadcast and a remote cablecast transmitter station, said one of a remote broadcast and a remote cablecast transmitter station comprising at least one receiver for receiving information from an origination transmitter station; at least one signal generator for embedding data in one of a broadcast and a cablecast information transmission; at least one transmitter for transmitting said one of a broadcast and a cablecast information transmission; and at least one of a processor, a controller, and a computer for

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corresponding user specific information is not being transmitted to an output device; detecting the presence of said instruct-to-transmit signal at selected receiver stations and coupling said instruct-to-transmit signal to the computers associated with said selected stations, and causing said last named computers to generate and transmit their user specific signals to their associated output devices in response to said instruct-to-transmit signal, thereby to transmit to the selected output devices an output signal comprising said data and said related user specific signals, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

controlling one of the communication of information to and the embedding of information at said signal generator, comprising the steps of:

(1)   receiving said one of a broadcast and a cablecast information transmission at[a transmission] said origination transmitter station;

(2)   generating an instruct-to-embed signal effective to cause said one of a broadcast and a cablecast transmitter station to cease embedding one of first data and a first control signal, and embed[a different a unit of] one of second data and a second control signal in said broadcast or cablecast information transmission; and

(3)   transmitting said one of a broadcast and a cablecast information transmission and said instruct-to-embed signal.

Claim 3 of the present application is distinct from the third representative claim, claim 24 of U.S. Patent 4,965,825.

Patent 4,965,825, claim 24 claims a method of generating user specific output information at a multiplicity of receiver stations. Each receiver station is programmed with a special user application and has a computer adapted to generate user specific output information. Each receiver station has an output device to which its computer transmits a user specific signal. At a time when the user specific output information does not exist, an instruct-to-generate signal is transmitted to the receiver stations. In response to the instruct-to-generate signal, the computers generate and transmit to the output devices the user specific output information in user specific signals which are different, "with each output signal specific to a specific user".

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Present application claim 3, as amended, relates a method of controlling the transmission of data or control signals by a remote broadcast or cablecast transmitter station. The method includes the steps of receiving a broadcast or cablecast transmission, generating a control signal to cause the broadcast or cablecast transmitter station to cease embedding one specific unit of data or a control signal, and to cause the broadcast or cablecast transmitter station to commence embedding a different unit of data or control signal.

Patent claim 24 does not cover present application claim 3. Claim 24 relates to user specific signals sent from the receiver station to an output device. Application claim 3 relates to a transmitter station ceasing to embed one of a specific unit of data or a control signal in an information transmission, and embedding a different one of a specific unit of data or a control signal in the information transmission in response to a generated instruct-to-embed signal. The two claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.

U.S. patent 4,965,825, claim 24	Present application, claim 3 (as amended)
In a method of generating computer output at a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific output information content and user specific signals to one or more associated output devices, with at least one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify said computers' method of processing data and generating output information content, each of said computers, being programmed to	A method of controlling the transmission of one of data and control signals by one of a remote broadcast and a remote cablecast transmitter station, said one of a remote broadcast and a remote cablecast transmitter station comprising at least one receiver for receiving information from an origination transmitter station; at least one signal generator for embedding data in one of a broadcast and a cablecast information transmission; at least one transmitter for transmitting said one of a broadcast and a cablecast information transmission; and at least one of a processor, a controller, and a computer for

accommodate a special user application, the steps of:

transmitting an instruct-to-generate signal to said computers at a time when corresponding user specific output information content does not exist, and causing said last named computers to generate their user specific output information content in response to said instruct-to-generate signal, thereby to transmit to each of their associated output devices an output information content and the user specific signal of its associated computer, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

controlling one of the communication of information to and the embedding of information at said signal generator, comprising the steps of:

(1)   receiving said one of a broadcast and a cablecast information transmission at[a transmission] said origination transmitter station;

(2)   generating an instruct-to-embed signal effective to cause said one of a broadcast and a cablecast transmitter station to cease embedding one of first data and a first control signal, and embed[a different a unit of] one of second data and a second control signal in said broadcast or cablecast information transmission; and

(3)   transmitting said one of a broadcast and a cablecast information transmission and said instruct-to-embed signal.

<u>Claim 3 of the present application is distinct from the fourth representative claim, claim 15 of U.S. Patent 5,109,414</u>

Patent 5,109,414, claim 15 claims a signal processing system which receives data from a data source and outputs the data to a matrix switch and a detector, control signals are detected within the received data and stored for further processing, and a processor controls the directing functions of (1) the matrix switch which receives the data as input and can direct selected portions of the data to a data transmission means and (2) the device which stores and transfers the control signals to the processor.

Present application claim 3, as amended, relates a method of controlling the transmission of data or control signals by a remote broadcast or cablecast transmitter

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station. The method includes the steps of receiving a broadcast or cablecast

transmission, generating a control signal to cause the broadcast or cablecast transmitter

station to cease embedding one specific unit of data or a control signal, and to cause the

broadcast or cablecast transmitter station to commence embedding a different unit of

data or control signal.

Patent claim 15 does not cover present application claim 3. Patent claim 15

relates to a data system that receives and processes data from a data source and

includes a processor that controls the functions of a matrix switch and a storage device.

Application claim 3 relates to a transmitter station ceasing to embed one of a specific

unit of data or a control signal in an information transmission, and embedding a

different one of a specific unit of data or a control signal in the information transmission

in response to a generated instruct-to-embed signal. The two claims are capable of

separate manufacture, use, and sale as claimed and, as such, these two inventions are

distinct.

U.S. patent 5,109,414, claim 15	Present application, claim 3 (as amended)

In a signal processing system,
    a receiver/distribution means for receiving data from a data source and for outputting said data to a matrix switch means and a control signal detector means,
    a matrix switch means for receiving said data from said receiver/distributor means and for directing selected portions of said received data to a data transmission means,
    a control signal detector means for
	A method of controlling the transmission of one of data and control signals by one of a remote broadcast and a remote cablecast transmitter station, said one of a remote broadcast and a remote cablecast transmitter station comprising at least one receiver for receiving information from an origination transmitter station; at least one signal generator for embedding data in one of a broadcast and a cablecast information transmission; at least one transmitter for transmitting said one of a broadcast and a cablecast information

detecting control signals respecting said data and transferring said control signals to a storage/transfer means, said control signal means being configured to detect said control signals at a predetermined location within said data,

a storage/transfer means for receiving and storing said control signals and for transferring at least a portion of said control signals to a processor means for further processing, and

a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means based on instructions contained in said control signals.

transmission; and at least one of a processor, a controller, and a computer for controlling one of the communication of information to and the embedding of information at said signal generator, comprising the steps of:

(1)   receiving said one of a broadcast and a cablecast information transmission at[a transmission] said origination transmitter station;

(2)   generating an instruct-to-embed signal effective to cause said one of a broadcast and a cablecast transmitter station to cease embedding one of first data and a first control signal, and embed[a different a unit of] one of second data and a second control signal in said broadcast or cablecast information transmission; and

(3)   transmitting said one of a broadcast and a cablecast information transmission and said instruct-to-embed signal.

Claims 2-4 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and other listed U.S. applications. The rejection should rightfully be a provisional rejection until one or more of the copending applications issues, at which time the rejection can be made non-provisional.

Secondly, although the rejection is stated as a judicially created obviousness double patenting rejection, the examiner's arguments are those of a Schneller non-obviousness, non-statutory double patenting rejection. Applicants' reply brief addresses the merits of the Schneller-type rejection.

The examiner's comments on the claims is acknowledged and appreciated. With respect to the assertion, in paragraph 2, that no attempt to will be made to determine the effective filing date of this application, applicant claims priority under 35 U.S.C. § 120 of the following applications:

Serial No.	Filing Date	Patent No.
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825

Applicants will address the art rejections of this Office Action, but traverse the assertion that a double patenting situation exists.

As to the paragraph numbered 3, applicants acknowledge their duty to maintain a line of patentable demarcation between related applications. Assuming, *arguendo*, that substantially duplicate claims exist, the applicants intend to make a good faith effort to alert the PTO of any instances in which the PTO treats such claims inconsistently.

As to the paragraph numbered 4, applicants acknowledge and appreciate the examiner's concern over the use of alternative claim language. Applicants assert that they believe that the disclosure supports every possible embodiment or permutation that can be created using said language. During the prosecution of this application, applicants intend to ensure that the disclosure supports each possible embodiment claimed using alternative claims.

In paragraph 10, the Office Action states that "determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications

over each other will be deferred until a later time." Applicants submit that the examiner and the PTO cannot defer further rejections to a later time. Every ground of rejection should be made in examiner's first Office Action. 37 CFR § 1.104(a) states that "[o]n taking up an application for examination . . . the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated." The MPEP states "[t]he examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to such matters before action is made." MPEP § 707.07, citing 37 CFR § 1.105. Finally, "[p]iecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available . . . ." "Where a major technical rejection is proper, it should be stated with full development of reasons rather than by mere conclusion coupled with some stereotyped expression." MPEP § 707.07(g). Applicants submit that the examiner has a duty to give each application a complete examination, to make rejections with specificity, and that not to defer rejections. For these reasons, applicants likewise traverse the rejection based on the "judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following [list of all applicants copending applications]." Applicants submit that this rejection, even if

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appropriately made with specificity, should be a provisional double patenting rejection. Applicants respectfully request that this rejection be withdrawn.

As to the grouping of paragraphs numbered 21, applicants acknowledge and appreciate the interviews provided by the PTO. Applicants also appreciate the detailed description of the interviews provided in the Office Action. The Office Action states that "the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings." Applicants note that based on the Office Actions received thus far, the PTO does not appear to be following the groupings applicants submitted previously. The order of examination of applicants' applications do not seem to have any correspondence to the groupings previously submitted. Applicants, therefore, will not supply further groupings. Applicants will, however, gladly supply further groupings if requested by the PTO for the purpose of following these groupings. Mr. Groody has confirmed in a telephone conversation between Mr. Groody and Mr. Scott that no more groupings need be sent.

In the interest of maintaining a clear record, applicants respectfully traverse the Office Action's interview summary statement that an offer was made to terminally disclaim the present application with the '81 or '87 patents. Rather, applicants respectfully submit that their offer was to disclaim a block of copending applications against one another, provided their issue date was in close enough proximity so as not to result in unnecessarily great losses in patent term duration.
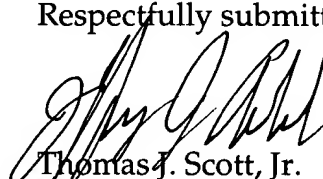
CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, that all pending claims patentably distinguish over the prior art, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for telephone interview to discuss resolution of such informalities.

Respectfully submitted,

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